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AF/3724 IF.  
Docket No.: 600.1040  
Date: June 8, 2004

In re application of: Michael Lee HEARN  
Serial No.: 09/533,685  
Filed: March 23, 2000  
For: DOUBLE-CUT FOLDER WITH COMBINATION CUT AND NIP CYLINDER

Sir:

Transmitted herewith is a Appellant's Brief Under 37 C.F.R. §1.192 filed in Triplicate (9 pages each) in the above-identified application.

- ☐ Small entity status under 37 C.F.R. 1.9 and 1.27 has been previously established.  
☐ Applicants assert small entity status under 37 C.F.R. 1.9 and 1.27.  
☒ No fee for additional claims is required.  
☐ A filing fee for additional claims calculated as shown below, is required:

		(Col. 1)	(Col. 2)	SMALL ENTITY		OR	LARGE ENTITY	
FOR:	REMAINING	HIGHEST		RATE	FEE		RATE	FEE
	AFTER	PREVIOUSLY	PRESENT					
	AMENDMENT	PAID FOR	EXTRA					
TOTAL CLAIMS	* Minus**	=	0	x \$ 9	\$		x \$ 18	\$
INDEP. CLAIMS	* Minus***	=	0	x \$ 42	\$		x \$ 84	\$
<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEP. CLAIM				+ \$140	\$		+ \$280	\$

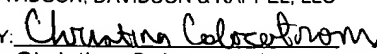
TOTAL: \$ OR TOTAL: \$

- \* If the entry in Co. 1 is less than the entry in Col. 2, write "0" in Col. 3.  
 \*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, write "20" in this space.  
 \*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, write "3" in this space.

- ☐ Also transmitted herewith are:  
☐ Petition for extension under 37 C.F.R. 1.136 (in duplicate)  
☐ Other:  
☐ Check(s) in the amount of \$.00 is/are attached to cover:  
☐ Filing fee for additional claims under 37 C.F.R. 1.16  
☐ Petition fee for extension under 37 C.F.R. 1.136  
☐ Other:  
☒ The Assistant Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 50-0552.  
☒ Any filing fee under 37 C.F.R. 1.16 for the presentation of additional claims which are not paid by check submitted herewith.  
☒ Any patent application processing or patent appeal fees under 37 C.F.R. 1.17.  
☒ Any petition fees for extension under 37 C.F.R. 1.136 which are not paid by check submitted herewith, and it is hereby requested that this be a petition for an automatic extension of time under 37 CFR 1.136.

  
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I hereby certify that this correspondence and/or documents referred to as attached therein and/or fee are being deposited with the United States Postal Service as "first class mail" in an envelope with sufficient postage addressed to "Commissioner for Patents, Alexandria, VA 22313-1450" on June 8, 2004

DAVIDSON, DAVIDSON & KAPPEL, LLC  
 BY:   
 Christina Colocotronis



600.1040

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Re: Application of: Michael Lee HEARN  
Serial No.: 09/533,685  
Filed: March 23, 2000  
For: DOUBLE-CUT FOLDER WITH  
COMBINATION CUT AND NIP CYLINDER  
Art Unit: 3724  
Examiner: Clark F. DEXTER  
Confirmation No.: 9876

Docket No: 600.1040

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Mail Stop: APPEAL  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

June 8, 2004

**APPELLANT'S BRIEF UNDER 37 C.F.R. § 1.192**

Sir:

Appellant submits this brief for the consideration of the Board of Patent Appeals and Interferences (the "Board") in support of his appeal of the Final Rejection dated December 10, 2003 in this application. An original and two copies of this brief are submitted herewith. The statutory fee of \$330.00 is paid concurrently herewith.

**1. REAL PARTY IN INTEREST**

The real party in interest is Heidelberger Druckmaschinen AG, a German corporation having a place of business at Kurfuersten-Anlage 52-60, D-69115 Heidelberg, Germany, the assignee of the entire right, title and interest in the above-identified patent application. The invention was assigned by inventor Michael Lee

HEARN to Heidelberger Druckmaschinen AG. The assignment was recorded on August 15, 2000 at reel 011050, frame 0169.

## 2. RELATED APPEALS AND INTERFERENCES

Appellant, his legal representatives, and assignee are not aware of any appeal or interference that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.

## 3. STATUS OF CLAIMS

Claims 1 to 21, 31, 32 and 39 have been canceled. Claims 22 to 30 and 33 to 38 are pending.

Claims 22 to 30 and 33 to 38 have been finally rejected as per the Final Office Action dated December 10, 2003.

The rejection of claims 22 to 30 and claims 33 to 38 thus is appealed. A copy of appealed claims 22 to 30 and claims 33 to 38 is attached hereto as Appendix A.

## 4. STATUS OF AMENDMENTS AFTER FINAL

A Response to the Final Office Action, which included amendments to claims 25, 27, 29 and 30, was filed on April 7, 2004 and was entered by the Advisory Action of May 6, 2004.

## 5. SUMMARY OF THE INVENTION

The present invention provides a cutting and nipping device for cutting and nipping a web (e.g. 101 in Figure 1, e.g. specification at page 4, line 28), which has a first cutting cylinder (e.g. 3 in Figure 1, e.g. specification at page 4, line 28) with a first segmented cutting blade (e.g. 4 in Figures 1 and 3, and specification at page 5, line 1) which has axially spaced first blade edges (e.g. 45 in Figure 3, e.g. specification at page 5, line 9 and page 7, line 29) and the first cutting cylinder surface extending circumferentially about the first cutting cylinder from the first blade edges (e.g. 203 in Figure 5, see, e.g. specification page 5 at lines 8 to 11. A first anvil cylinder (e.g. 2 in Figure 1, see, e.g. page 5 at line 3) is provided which has a first

anvil cylinder nipping surface extending circumferentially about the first anvil cylinder (e.g. 202 in Fig. 5 and page 5, lines 6 to 8). The first cutting cylinder surface and the first anvil cylinder surface provide a nip for the web (e.g. 1 in Figure 1, and specification at page 5, line 4) about the first segmented cutting blade (e.g. 4 in Figures 1 and 3, and specification at page 5, lines 1 and 4).

The nipping elements (see 202, 203 in Fig. 5, specification at page 5, lines 5 to 11) may be made of urethane.

## 6. ISSUES

Whether claims 22, 30, 33 and 36 should be rejected under 35 U.S.C. 102 (b) as being clearly anticipated by Wolfberg et al. (US Patent No. 3,866,497), whether claims 23 to 25, 34, 35, 37, and 38 should be rejected under 35 U.S.C. § 103 (a) as being unpatentable over Wolfberg et al. in view of Sturtz (US Patent No. 4,249,441) and Littleton (US Patent No. 5,103,703) and whether claims 26 to 29 should be rejected under 35 U.S.C. 103 (a) as being unpatentable over Wolfberg et al. in view of Sauer (US Patent No. 3,522,762), Sturtz and Littleton (US Patent No. 5,103,703).

## 7. GROUPING OF CLAIMS

Since the claims do not stand or fall together, they may be grouped as follows:

Group I: Claims 22, 24, 25, 26, 28, 30, 33, 35, 36 and 38 directed to a cutting and nipping device and a folder.

Group II: Claims 23, 27, 29, 34, and 37, dependent claims which contain limitations to urethane on the cutting cylinder.

## 8. ARGUMENTS

### GROUP I

Claims 22, 30, 33 and 36 were rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Wolfberg et al. Claims 24, 25, and 38 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Wolfberg et al. in view of Sturtz (US Patent No. 4,249,441) and Littleton (US Patent No. 5,103,703). Claims 26 and 28

were rejected under 35 U.S.C. § 103 as unpatentable over Wolfberg et al. in view of Sauer (US Patent No. 3,522,762), Sturtz and Littleton (US Patent No. 5,103,703).

Claims 22 recites a cutting and nipping device for cutting and nipping a web, comprising:

a first cutting cylinder having a first segmented cutting blade with axially spaced first blade edges and a first cutting cylinder nipping surface extending circumferentially about the first cutting cylinder from the first blade edges; and

a first anvil cylinder having a first anvil cylinder nipping surface extending circumferentially about the first anvil cylinder;

the first cutting cylinder nipping surface and the first anvil cylinder nipping surface providing a first nip for the web about the first segmented cutting blade.

The present invention thus provides that the web is nipped between the first cutting cylinder and the first anvil cylinder, using the first cutting cylinder nipping surface extending from the first segmented cutting blade and the anvil cylinder nipping surface.

A nip in a printing press is a location where the web is squeezed or compressed together, typically by two cylinders. The web is compressed so that the web in the nip does not slip or move with respect to the cylinders in a way that could effect print-to-print or print-to-cut register. See for example the specification at page 2, lines 15 to 16.

Wolfberg discloses drums 112, 116, 104, 106 for cutting a web of business forms, the drums 112, 104 and 108 being disposed to carry blades 114 and 108. (see col. 8, line 55 to col. 9, line 4.) The blades 108 are described as engaging the web, but no mention is made of any of the drums nipping the web.

In fact, the web of Wolfberg is moved via drive rollers at the periphery of the web as clearly indicated by the holes at the edges in Wolfberg and as shown in Fig. 9.

To one of skill in the art, the Wolfberg drums clearly do not nip the web of business forms for at least two reasons:

1. The web is moved at its edges via pins. If the web were nipped, i.e. compressed, by surfaces extending from the blades 108, any relative movement between the pins and drums would cause the

edges of the business forms to tear away, which would cause a malfunction. In other words, nipping, as claimed by claim 22, is not desired with the business forms having the edge pin conveying device of Wolfberg; and

2. The business forms of Wolfberg clearly contain carbon sheets, such as 18 and 22 shown in Figs 3 and 4. Nipping action and thus compression at the drum surfaces clearly would cause the carbon sheets to make black marks all over the business forms. Thus one of skill in the art would have understood that Wolfberg does not provide any nip at the cutting device.

Wolfberg thus does not have “the first cutting cylinder nipping surface and the first anvil cylinder nipping surface providing a first nip for the web about the first segmented cutting blade” as recited in claim 22, as Wolfberg does not nip at its cutting devices. Independent claim 33 recites similar limitations.

Withdrawal of the 35 U.S.C. 102/103 rejections for the Group I claims is respectfully requested

## GROUP II

Claims 23, 27, 29, 34, and 37, depend from claims 22 or 33 and all contain further limitations to urethane as the outer or nipping surface for the cutting cylinder. Claims 23, 34 and 37 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Wolfberg et al. in view of Sturtz (US Patent No. 4,249,441) and Littleton (US Patent No. 5,103,703). Claims 27 and 29 were rejected under 35 U.S.C. §103(a) as being unpatentable over Wolfberg et al. in view of Sauer (US Patent No. 3,522,762), Sturtz and Littleton (US Patent No. 5,103,703).

Claim 23 depends on claim 22 and recites for example “wherein the first cutting cylinder nipping surface has a urethane outer coating.”

Sturtz only shows urethane at the sides and not extending circumferentially from the blades, as the first cutting cylinder nipping surface is defined as in claim 22. Littleton only shows an anvil roll with a urethane coating.

Thus none of the prior art shows "a first cutting cylinder nipping surface extending circumferentially about the first cutting cylinder from the first blade edges" having a urethane outer coating as claimed in claim 23.

Withdrawal of the rejections to the Group II claims under 35 U.S.C. § 103 thus is respectfully requested for this reason as well as for the reasons above with respect to Group I.

Respectfully submitted,

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#### APPENDIX A:

#### APPEALED CLAIMS 22 TO 30 AND 33 TO 38 OF U.S. APPLICATION SERIAL NO. 09/533,685

Claim 22 (previously presented): A cutting and nipping device for cutting and nipping a web, comprising:

a first cutting cylinder having a first segmented cutting blade with axially spaced first blade edges and a first cutting cylinder nipping surface extending circumferentially about the first cutting cylinder from the first blade edges; and

a first anvil cylinder having a first anvil cylinder nipping surface extending circumferentially about the first anvil cylinder;

the first cutting cylinder nipping surface and the first anvil cylinder nipping surface providing a first nip for the web about the first segmented cutting blade.

Claim 23 (previously presented): The cutting and nipping device as recited in claim 22 wherein the first cutting cylinder nipping surface has a urethane outer coating.

Claim 24 (previously presented): The cutting and nipping device as recited in claim 22 wherein the first anvil cylinder nipping surface has a urethane outer coating.

Claim 25 (previously presented): The cutting and nipping device as recited in claim 24 wherein the continuous urethane outer coating is continuous.

Claim 26 (previously presented): The cutting and nipping device as recited in claim 22 wherein the first cutting cylinder includes a two-part metallic hub.

Claim 27 (previously presented): The cutting and nipping device as recited in claim 26 wherein the first cutting cylinder nipping surface has a urethane outer coating, and wherein the urethane outer coating is bonded to the outer surface of the hub.



Claim 28 (previously presented): The cutting and nipping device as recited in claim 22 wherein the first anvil cylinder includes a two-part metallic hub.

Claim 29 (previously presented): The cutting and nipping device as recited in claim 28 wherein the first cutting cylinder nipping surface has a urethane outer coating, and wherein the urethane outer coating is bonded to the outer surface of the hub.

Claim 30 (previously presented): The cutting and nipping device as recited in claim 22 wherein the first cutting cylinder has a second segmented cutting blade spaced 180 degrees apart from the first segmented cutting blade.

Claim 33 (previously presented): A folder for a web printing press, comprising:  
a first cutting and nipping device for partially cutting and nipping a web, the first cutting and nipping device having:

a first cutting cylinder, the first cutting cylinder having a first segmented cutting blade with axially spaced first blade edges and a first cutting cylinder nipping surface extending circumferentially about the first cutting cylinder from the first blade edges; and

a first anvil cylinder, the first anvil cylinder having a first anvil cylinder nipping surface extending circumferentially about the first anvil cylinder;

the first cutting cylinder nipping surface and the first anvil cylinder nipping surface providing a first nip for web about the first segmented cutting blade.

Claim 34 (previously presented): The folder as recited in claim 33 wherein the first cutting cylinder nipping surface has a urethane outer coating.

Claim 35 (previously presented): The folder as recited in claim 33 wherein the first anvil cylinder nipping surface has a urethane outer coating.

Claim 36 (previously presented): The folder as recited in claim 33, further comprising:

a second cutting and nipping device for cutting and nipping the web, the a second cutting and nipping device having:

a second cutting cylinder, the a second cutting cylinder having a second segmented cutting blade with axially spaced second blade edges and a second cutting cylinder nipping surface extending circumferentially about the second cutting cylinder from the second blade edges; and

a second anvil cylinder, the second anvil cylinder having a second anvil cylinder nipping surface extending circumferentially about the second anvil cylinder;

the second cutting cylinder nipping surface and the second anvil cylinder nipping surface providing a second nip for the web about the second segmented cutting blade.

Claim 37 (previously presented): The folder as recited in claim 36 wherein the second cutting cylinder nipping surface has a urethane outer coating.

Claim 38 (previously presented): The folder as recited in claim 36 wherein the second anvil cylinder nipping surface has a urethane outer coating.